1.913 E3543 Reserve

UNITED STATES DEPARTMENT OF AGRICULTURE

4.5 E X T E N S I O N S E R V I C E

Washington, D. C.

SUGGESTIONS FOR EXTENSION WORKERS IN BOLL-WEEVIL CONTROL

M. P. Jones 1895 
Extension Entomologist

Boll weevils have survived the winter in large numbers. In Florence County, S. C., Government entomologists examined surface trash in the woods near the edges of old cottonfields. They found that weevils had survived at the rate of 2,995 an acre as compared with 1,869 weevils an acre a year ago. In surface trash near fields where cotton stalks were cut early in the fall of 1941, only 97 weevils an acre survived that winter. The grower who picked his cotton early and cut his stalks during September had less than one-nineteenth as many weevils at the beginning of the season as his neighbor who allowed his stalks to stand until they were killed by frost.

In Madison Parish, La., Government entomologists reported finding 750 weevils an acre in surface trash during March. This number was about twice that in 1942. The survival this year is greater than any of the past eight years, except 1941.

No doubt weevils are already coming into your cotton. Do you know where to look for them? Better go into the fields near the woods or along that revine some warm day when the sun is bright and examine the tops of the young cotton plants. Examine the field in several places. You will probably find the weevils most abundant around the edges of the field close to where they spent the winter. When you find enough weevils to average about 25 to the acre, it would be well to poison at least the part of the field where the weevils are most abundant.

Calcium arsenate is the best material to use. If you put it on the young cotton, either in the dust form or as a mop, it will kill the weevils. Mopping is a little cheaper, but is effective only while the weevils are in the tops of the plants before the squares become abundant. This practice is in use in some of the Southeastern States. If you prepare for dusting early in the season you will be ready to dust any time during the summer when weevils are threatening. Sometimes they remain in their winter quarters until after cotton is squaring freely and then come out to the fields too late for presquare poisoning. That is what happened in South Carolina in 1941 and probably in other Southeastern States. More than half the weevils came to the fields after presquare poisoning was over. People who dusted their cotton properly during the summer saved their crop.

Two to three pounds of calcium arsenate to the acre used either as a dust or in a mopping mixture is sufficient while the plants are small or in the presquare stage. It is difficult to make this small amount of calcium arsenate dust cover an acre of cotton unless the calcium arsenate is diluted with equal parts of lime or sulfur.

Calcium arsenate can be applied economically and effectively from a mechanical duster. If no mechanical duster is available for use on the small plants early in the season, a less effective duster to meet the present energency may be made from a tin can by punching holes in the bottom. A sugar sack may also be used. After these containers are filled, they are held over the plant and a sudden downward and then upward jerk releases a small cloud of dust.

For mopping, a poison sirup may be made by mixing I pound of calcium arsenate, I gallon of molasses, and I gallon of water. This sirup may be daubed or copped on the plants by the use of a piece of croker or feed sack tied onto the end of a stick. The part of the sack which extends about 4 inches beyond the end of the stick may be cut into ribbons 1-1/2 to 2 inches wide. Mopping will not control weevils after the cotton begins fruiting freely, and as the cotton grows larger, the tin can and sack dusters become less effective.